

for the Free-Church College in the third pointed style. The Royal Institution is in a hollow, as some of our readers will remember, and, viewed from the end of Hanover-street, the new college is seen above it, and then again rising above that, and almost forming part of it, in appearance, rises the spire of the Assembly Hall.

The latter structure, sometimes called the Victoria Hall, was built under Mr. Gillespie Graham: the spire is 240 feet high, and is seen from all parts of the city. It is in the decorated style of pointed architecture, and the tower is superior to most of the modern gothic works in Edinburgh; not excepting the Scott monument, which, notwithstanding the skill and imagination it displays, and that it is a lasting monument of the genius and perseverance of its unfortunate architect, George Mickie Kemp, will scarcely satisfy the fastidious eye of the present day.\*

A sad story is that of poor Kemp, and not uninteresting. Our readers will remember the surprise which his design excited when, in competition with many others, it was submitted under the signature of "John Morro," and the greater surprise which followed when the rough, self-taught man was found that had produced it, and his story had been heard; how that, brought up, an obscure carpenter, he had, impelled by his enthusiastic love for gothic architecture, travelled on foot over a considerable portion of Europe, drawing and examining the works of the middle ages, and when the Scott competition was advertised, had sat down to apply the knowledge he had acquired, and entered the lists without a friend. With a thoughtlessness that characterised him, he had not sent his real name and address to accompany the design, so that for some time he remained ignorant of its selection. Of the controversy which followed, his distress, his triumph, and his untimely death, which, but for a too common, but none the less fearful failing, had probably not occurred,—all have heard.

Amongst the living architects of Scotland, Mr. William Burn holds a distinguished place, and Edinburgh contains many specimens of his skill: the Assembly Rooms, the Melville Column, the Orphan Hospital, and other buildings. Although Mr. Burn has left Scotland, and now resides in London, he is executing, in conjunction with his partner (Mr. Bryce), some important works in various parts of the country.

The Western Bank of Scotland, at this time building under their direction in Edinburgh, is nearly finished externally, and is entitled to praise. It is in the Italian palace style, but differs from the ordinary examples of it in England by a greater amount of boldness in the projections and decorations,—slightly, perhaps, to an excess. The cornice is very large, and has a sculptured frieze. The building is three stories in height, has a range of seven windows in front, and will present in the doorway a sculptured group by Ritchie, to which we have already alluded.

In another paper we shall be able to close these notes about Edinburgh, and to speak of the case which took us there.

**ARCHÆOLOGICAL INSTITUTE OF GREAT BRITAIN.**—The meeting to be held at Lincoln will commence on Tuesday, 25th inst., and terminate on the 31st. Wednesday is set apart for the cathedral.

\* The foundation-stone was laid August 15th, 1846, and the building was finished in 1844. Its height is 250 feet 6 inches, and its cost was 15,554*l.* For the statue of Scott, by Steele, which it contains, the sculptor received 3,000*l.*—*Black & White.*

#### THE GAS MOVEMENT. MISCELLANEOUS NOTES.

NOTWITHSTANDING the distraction of the national attention by the concentration of an age of interest and a world of events within the brief space of two or three months, and the consequent lagging of almost every subject of social home interest, and its absorption into the whirlpool of political events abroad—and even of these too at home—the Gas Movement, though so far suspended, like all but the more stirring social and political questions of the day, has too good a cause, and too much vital stamina, to be either swamped in the vortex or anything like defunct. On the contrary, even of late, the subject, in various aspects, has been passing out of the fostering hand of the journalist, into the fructifying care of the lecturer, and his more exclusive colleague, the scientific member of society. In the Transactions of the Royal Scottish Society of Arts, we find an F.R.S. of the Scottish school, who ranks amongst its highest members, namely, Dr. Fyfe, Professor of Chemistry, &c., in King's College, Aberdeen, reading a paper to the Scottish Royal Society of Arts on the Price of Gas-light in different places throughout the Country; and on the Consumption of Gas and its Illuminative Power, as also on the Relative Value of Gas from different species of Coal. We may have future occasion to refer to this elaborate paper; but in the meantime we have only space to remark that Professor Fyfe has found that "to light an apartment to the same extent, and for the same time, by similar methods of consumption, the quantity of gas from Scottish-parrot coal required being as 1, the quantity of gas from English parrot coal would be more than double, and that from English caking coal would be five times as great." In taking into account, however, the quantity of gas given off from the coals along with the value of the gases themselves for affording light, he has "fixed the value of the coals as follows:—English caking coal being 1; that of the English parrot coal is on an average 2·3; and that of the mixture of Scottish parrot coal, as used in different towns, as 6."—At the end of last month a short series of lectures on gas, and other artificial light, was delivered at the Collegiate Institution, Liverpool, by Mr. Wright, of London, to which also we can scarcely do more at present than refer. The Liverpool gas, he calculated, costs about 2½d. a pound weight, while the cheapest tallow is 6d. to 7d. The London gas he held to be very inferior in quality to that at Liverpool, though so much dearer. The Liverpool gas, he believed, was about the best in England. The weight of different gases was tested by an invention of his own, in form of a balloon. On the subject of meters and burners, the lecturer enlightened his hearers by an initiation into some of the mysteries of the economics of gas light.—Other lecturers, such as Dr. A. W. Hoffmann, at the Royal College of Chemistry, Hanover-square, have within the last two or three months been variously engaged in diffusing that practical and scientific knowledge of this important subject, to the popular demand for, and interest in, which, lecturers and other men of science and practice, have thus begun more systematically to administer.

—A valuable discovery, it is said, has been made by Mr. W. Kemp, in economising fuel at Galashiels' Gas Works, in Scotland, by which almost all expense of fuel is saved. In his account of this discovery at a late meeting of the Royal Scottish Society of Arts, Mr. Kemp pointed out that where coal tar is burned, it has an injurious effect on the furnace bars and retorts, the greatest annoyance arising from the rapid clinking up of the furnace bars, to remove which the fireman has frequently to throw water into the furnace, which causes the rapid destruction of the bars. To prevent this, the idea occurred to him of using the exhausted tan-bark of tan-works, which had the desired effect. The force pump for injecting the tar into the furnace was next thrown aside, as it was found that the dry bark absorbed tar equal to its production at the works. The mixture burns clearly. Where tan-bark cannot be had, *peat-moss* makes a good and inexhaustible substitute. Mr. Kemp stated that, in one year, 126*l.* were saved on furnace coal in the gas-work of this small town: and

he pledged himself that, in future, not a penny would be required for that article at all.

We will venture to say that the economising, compensatory, and remunerative processes which reduce the actual prime cost of gas, or the outlay or loss in its manufacture, are unique and unequalled in the processes of any other manufacture on the face of the earth, and that without the necessity, or quite independent, of any new discovery, they are capable, in many instances, of reducing that prime cost or outlay to little or nothing.—At a recent meeting of the Rugby Gas and Coke Company, the directors, opening their eyes very wide, no doubt, on this awakening to a sense of their own true interests, "expressed themselves exceedingly gratified in being able to inform the proprietors that no loss had arisen from the reduction made in the price of gas at the last annual meeting, but, on the contrary, that the receipts had increased." Their works had also been extended, to meet the increased consumption it appears; and it was added, that "in consequence of the complete manner in which the works are finished, the ammonia is evaporated, and converted into salt, and the tar is consumed as fuel, so that all causes of complaint on account of injury to the river, and unpleasant smells, are, as far as possible, removed. A contract with the London and North-Western Railway Company, for the supply of gas at 5*s.* per 1,000 cubic feet, was approved of; and it was also further decided that the price of gas to private consumers should be reduced to 7*s.* 6*d.* per 1,000 feet,—a shameful difference (over and above ample discount, no doubt) in favour of the 'large consumer,' to which, and its general prevalence, and to the useful inferences deducible from it, we shall take another opportunity to refer.—This company announced a dividend of 7 per cent. "upon the whole stock of the company"—or on their utmost nominal or fixed capital, we rather calculate; and if they desire to raise that per-centage to double the amount, they will halve even their present reduced price to private consumers.—The Doncaster Gas Company have announced a further reduction of price, which they may depend on it the public will duly acknowledge in the way they wish.—The Appleby Gas Company threaten to shut up shop altogether as 'a losing concern.' We do not find this company on the list of returns to Parliament, but we will venture to say that they have their own prices to blame, and would they only study these returns by the light of our own exposition, they could not fail to be convinced of that, and to begin anew on a right principle.—A somewhat odd proceeding was lately put in practice at Wakefield, by, or on the part of, the town council, who might make their own gas, as the House of Correction does there, at 5*d.* to 6*d.* per 1,000 cubic feet, cost price, exclusive of wages and some other smaller items. The watchmen have been employed to put out the public lamps between 11 and 12 o'clock at night,—just about as rational a proceeding as if said watchmen were employed to bung up their own eye-sight with that dirt which is not much cheaper at Wakefield than its gas-light ought to be, and might be. A greater error, as a correspondent of the *Bradford Observer* remarks, could not have been committed, even on moonlight nights, than to allow the watchmen to leave their duty to extinguish the lamps, while the property of the inhabitants is, to say the least of it, more exposed to danger.—A bright, flaming idea occurred to the Nottingham authorities during the recent pitiful British imitations of the renewed attempts of our French neighbours in turn to imitate Brother Jonathan's more original spirit in establishing his western republic in the last century. At each gate of the gas-house "a moveable pipe, attached to one of the mains, was fixed up, so that the persons inside might pour upon the mob, in case they attempted to break into the premises, a volume of flame, that would force the most daring to desist; and thus the works were guarded, like the necromantic castles of old, by dragons vomiting fire." The idea is one worthy of 'the Celestial empire' itself and its 'fire-devils,' and might be provided, on a pinch, as a formidable means of defence at other gates than those of a mere gas-house.